

Important to Obtain Readily Available, Site Specific Data For Large Quantity Discharges Of Wastewater From Shallow Wells.

FKNMS ADVISORY COUNCIL, February 16, 2016.

PUBLIC COMMENT OF JAN M. EDELSTEIN.

...our findings regarding connectivity were later substantiated by the results of the Water Science Associates work for the FKAA entitled “Aquifer Test Report – Cudjoe Key Wastewater Treatment Plant” as shown on their Figure 8. Their water elevation curves in ALL monitoring wells are parallel, with practically the same wavelength and the same amplitude, and without any lag....**In summary ... there is an undeniable ... connection between the injection depth (80’ to 120’) and surface waters.**

Henry Briceno, PhD.

In an e-mail to Brian Powell of Fish and Wildlife Service, dated November 24, 2015

...wastewater injected into the proposed shallow disposal wells on Cudjoe Key will 1) carry phosphorus injected with the effluent to near-shore surface waters through the highly porous bedrock and **2) dissolve carbonates** in that bedrock, **releasing additional phosphorus** that had been incorporated into that rock. When this phosphorus reached the seagrass meadows surrounding Cudjoe Key, **it will degrade the ecosystem and cause an imbalance and change the nature of the surrounding marine environment.**

An imbalance of the seagrasses that form the near-shore habitat and provide food at the base of the food chain will cause follow-on impacts to the fish and wildlife that use these habitats and therefore effect fishing, birdwatching and other commercial and recreational activities based on that habitat

James Fourqurean, Ph.D., *in a sworn statement dated October 12, 2015*

Aquifer Test Report - Cudjoe Key Wastewater Treatment Plant

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SEPTEMBER 2015

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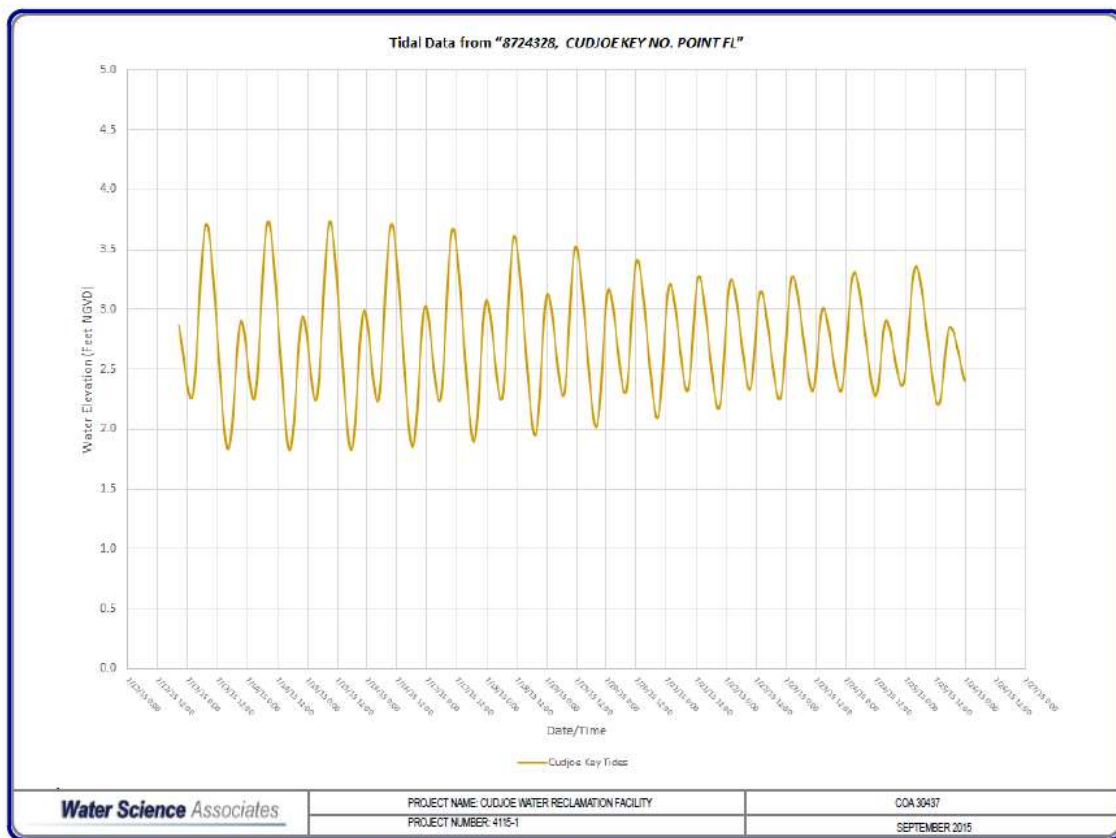


FIGURE 7. HYDROGRAPH OF TIDAL WATER ELEVATIONS FROM CUDJOE KEY TIDAL STATION

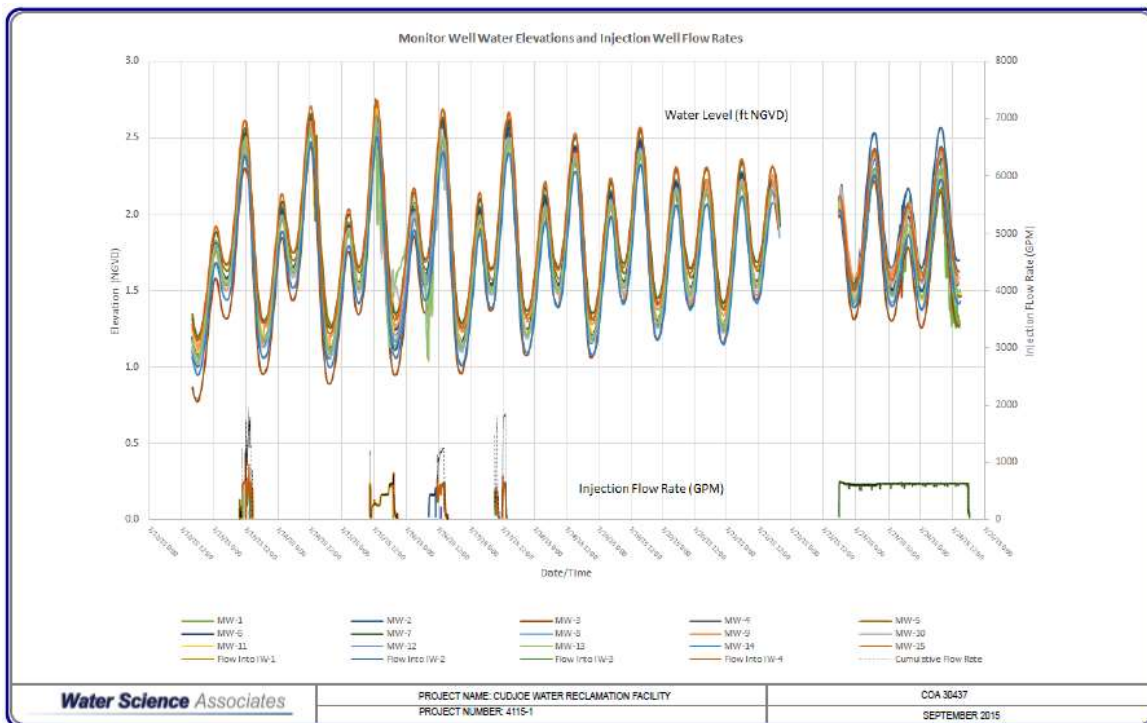


FIGURE 8. WATER ELEVATIONS IN MONITOR WELLS AND INJECTION RATES BETWEEN JULY 12 AND 23, 2015

Core Photos

Photograph 1 – Core box 13 -23 ft. Miami Limestone, oolite facies.



Photograph 5 – Core box 38 – 48 ft. Key Largo Limestone.



Photograph 8 – Core box 58 – 68 ft. Key Largo Limestone.



Photograph 12 – Core box 78 – 88 ft. Key Largo Limestone.



Photograph 14 – Core box 98 – 108 ft. Key Largo Limestone.



Photograph 15 – Core box 103 – 118 ft. Key Largo Limestone very poor to no recovery.

